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Fiscal rules in Latin America: a survey

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This survey first discusses general characteristics, advantages, and disadvantages of different types of fiscal rules. It then reviews the experience with fiscal rules in seven Latin American countries. Only Chile targets cyclically adjusted indicators although Colombia is going the “Chilean way” and the Mexican rule offers some stabilization properties. Argentina, Brazil and Peru apply numerical rules targeting the overall/primary public balance and/or the public spending. The Venezuelan framework has been substantially diluted or abandoned after introduction. The institutional coverage depends on the degree of decentralization of the fiscal systems with many countries including debt limits to the subnational governments as a key tool to face the common pool problem that emerges in federal states. All in all, it seems that fiscal rules in Latin America have been more effective in helping to strengthen the long term sustainability than in responding to shocks as proved by the recent financial crisis. Fiscal rules have had to be fine-tuned along the years and a “second generation” of fiscal rules may be necessary in order to increase their efficiency.

Keywords: fiscal rules, debt sustainability, fiscal policy stance, structural balance, fiscal impulse, stabilization funds

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Introduction

The *common ownership of public resources*², *principal-agent problems*³, *time inconsistency problems*⁴ and the *political budget cycles*⁵ create a bias towards fiscal deficits. This has led to many debt defaults in the history of the Latin America region.

The distortions mentioned in the previous paragraph also often lead to public expenditure distortions and procyclicality. According to standard economic policy, fiscal policy should be countercyclical. In the neoclassical smoothing model of Barro (1979), a government should optimally run surpluses in good times and deficits in bad times. That is the same a government should do, though for different reasons, in the standard Keynesian or neo-Keynesian framework.

Yet there is a wealth of evidence on the procyclicality of fiscal policy in Latin America (see Gavin and Perotti, 1997; and Kaminsky *et al.*, 2005) which contributes to macroeconomic volatility, depresses investment in real and human capital, hampers growth and increases fiscal vulnerability. This procyclical nature of the fiscal policy in the region has been exacerbated by: i) the relative scarcity, uncertainty and high volatility of revenues (with Brazil and, to a lesser extent, Argentina being exceptions) as commodity-linked revenues (taxes, royalties, profits) can be a large portion of government revenue; ii) the pervasive rigidities in public expenditures (which have led to a concentration of fiscal adjustments on public investments); iii) the need for ensuring progress to reduce poverty and inequality which are very high in the region; iv) the exposure of some countries in the region to pronounced economic fluctuations –shocks from sharp changes in the terms of trade as they are rich in commodities, price takers and small open economies- and to procyclical capital flows; and, v) in bad times (sudden stops and/or negative trade-related shocks) governments in emerging markets are credit-constrained while when times improve are free to go on a debt-financed spending spree (see Alberola and Montero, 2006). Thus, avoidance of procyclicality requires first and foremost the creation of adequate “fiscal space” (saving revenue windfalls in good times) to prevent the emergence of such financing constraints in bad times, or to prevent the rapid changes in investor sentiment and ease the vulnerability to financial crises, especially given the small size of automatic stabilizers (mainly due to informality).

A large empirical literature suggests that market discipline is certainly not a sufficient deterrent against deficit biases and/or fiscal procyclicality: if anything, the

² The *common pool problem* is the fact that recipients of public spending fail to fully internalize the costs that taxpayers must assume. For example, in a monetary union among sovereign nations or among sub-national entities, there may be adverse externalities created by a loose fiscal behaviour of one member of the union for other members. This *free rider* behavior of lower-level governments assumes that the central government and other lower-level governments will adopt a compensatory policy course, or that the central government will bail out subnational governments as they run into financial trouble.

³ The *principal-agent problems* arise between voters and political authorities due to lack of representation of future generations, sensitivity to special-interest lobbies, corruption and use of asymmetric and biased information.

⁴ Policies that were agreed to *ex ante* are not adhered to *ex post*.

⁵ Politicians are inclined to use public spending to advance their re-election prospects whenever an election approaches. See Nieto-Parra and Santiso (2010) for the analysis of political budget cycles in Latin American countries.

market seems to penalize fiscal profligacy in a discontinuous fashion only at a late stage. So, starting in New Zealand in 1994, an increasing number of countries around the world have steadily adopted fiscal rules (defined as standing commitments to specified numerical targets for some key budget and/or debt aggregates and to some procedures) over the past two decades (IMF, 2009b)⁶ to tackle the problems mentioned above.

This rules-based framework is an application of the more general “rules rather than discretion” principle developed by Kydland and Prescott (1977) and Barro and Gordon (1983) in monetary policy (inflation bias is the result of discretion but rules have a cost because they cannot include all possible contingencies and hence do not allow for an optimal response to unforeseen circumstances). In monetary policy the tension was motivated by the 1970s “Great Inflation”, was intellectually grounded in the rational expectations revolution in macroeconomic and was solved by delegating the task of conducting policy to an independent agency (the central bank) that can act with discretion but does not suffer from inflation bias because it is either more conservative than society as a whole (Rogoff, 1985) or has incentive contracts (Walsh, 1995).

In contrast to monetary policy rules and institutions, fiscal rules and institutions have received less attention by policymakers and academic researchers alike. Fiscal policy discretion may be beneficial under a number of circumstances (f.e., in the presence of unexpected shocks that require speedy policy action or virtuous politicians especially in Latin American countries where the unexpected shocks are large and lack large automatic stabilizers). But as explained before, there is growing evidence that discretion can be misused, leading to deficit bias, or the implementation of procyclical fiscal policies. In addition, things are more complicated in fiscal policy than in monetary policy because budget decisions are at the center of the political process and hence cannot be delegated to a politically unaccountable agency, which could expand the efficiency frontier in the tradeoff between flexibility and credibility (fiscal councils, unlike central banks in monetary policy, are just watchdogs that provide independent assessment of fiscal policy). Kopits (2001) argues that having a set of permanent, well-designed and properly implemented fiscal rules establishes a more depolitized framework for fiscal policy. In any case, although the ideal would be to adopt rules that allow for the highest credibility while limiting reduction in flexibility, it is bound that they are going to prevent an appropriate fiscal response in at least some circumstances.

This survey focuses on a group of seven countries in Latin America (Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela) bringing their fiscal rules under scrutiny⁷. It explores a range of design features (the specific numerical target laid down by the rule, which can be expressed either as a percentage of GDP, in local currency units or a growth rate, and the period over which the rule is to be applied), statutory

⁶ About 80 countries around the world currently use one or more rules based on numerical targets in their conduct of budgetary policies. For Spain’s case see, for example, the article “The reform of the fiscal framework in Spain: constitutional limits and the new public spending growth rule”, published in the October 2011 edition of the Banco de España’s *Economic Bulletin*.

⁷ In five of these countries (Brazil, Chile, Colombia, Mexico and Peru) fiscal policy rules have been embedded in an inflation targeting regime.

provisions (constitutional provisions, high-level legislation, ordinary legislation that applies to governments over successive electoral cycles or merely a policy guideline), the penalties for non-compliance (institutional or personal sanctions), institutional coverage (the level of government to which they apply) and operational arrangements (whether the rules include “escape clauses” -flexibility in special circumstances such as natural disasters and severe recessions-). Table 1 presents a summary of these key components of their fiscal rules. After this introduction, Section 2 analyses the different forms of fiscal rules from a theoretical point of view. Each of the next seven sections describes the individual country experiences with fiscal rules. Section 10 presents a general assessment of the fiscal rules in the region and Section 11 offers some concluding remarks.

Types of fiscal rules

Although fiscal rules have in common as its main objective to promote consistency with the intertemporal budget constraint, they take varied forms depending on the emphasis on long term sustainability (reduce the deficit bias and control the growth in public debt) or in reducing procyclicality of fiscal policy (short term stabilization)⁸. The first type of rules (those mainly based on signaling a commitment to fiscal sustainability) are based on numerical targets imposed on: i) the public debt defined in terms of revenues, debt service costs of GDP (stock indicators of fiscal performance); and/or, ii) flow indicators of fiscal performance (public deficits, primary public deficits, total revenue, total expenditure or specific spending categories) at various levels of government. In some cases a so-called “golden rule” (in which investment spending is excluded) is used to prevent crowding out much-needed public investment⁹. These numerical fiscal rules may also include borrowing rules (e.g., prohibition of central bank financing). Potential disadvantages of numerical fiscal rules include lack of flexibility in fiscal policy, procyclical biases in some cases¹⁰, and incentives to rely on low quality measures to meet the targets. They can even foster the adoption of practices to circumvent numerical rules (reclassification of expenditures from current to capital items, using off-budget public entities to perform government operations, using debt instruments not covered in debt limits, creative accounting, etc.)¹¹.

The second type of fiscal rules (with mainly a character of allowing fiscal policy to respond acyclically to changing macroeconomic circumstances) is based on: i) a balanced budget requirement specified in a multiyear or medium-term context public deficit over the cycle; or on, ii) numerical targets for the structural or cyclically-adjusted balance for each year (taking into account cyclical variables critical to the

⁸ With a procyclical fiscal policy, budget deficits are asymmetric across the business cycle rising during recessions but not falling as much during booms. Thus averaged over the business cycle the budget deficit will be higher. As a consequence, public debt levels experience a ratchet effect.

⁹ See Carranza *et al.* (2011) for an analysis regarding public infrastructure investment and fiscal frameworks.

¹⁰ With expenditure ceilings, procyclicality can arise from the revenue side (during boom periods, governments might be tempted to cut taxes or increase tax expenditures). And as these rules set ceilings, not floors, for public expenditure, do not necessarily avoid procyclicality during downturns.

¹¹ See Milesi-Ferretti (2004).

public deficit such as GDP and/or prices of key commodities or, put it in a different way, to distinguish the part due to changes in the environment and the part due to changes in policy). But the definition of a medium-term objective includes the temptation to take some leeway in the short term and count on correction at the end of the cycle. In the second case, structural balances, it raises a number of analytical issues as it is key to have a reliable indicator of the cyclical position of the economy (output gap)¹², the equilibrium price of some commodities and the extent to which individual budgetary items react to fluctuations in output (budgetary elasticities) and commodity prices. For example, if output grows quickly and is attributed to structural increases, the rule would imply that spending should be increased permanently. However, should the output increase be reversed, the government would be stuck with higher, difficult to reverse expenditure outlays. This suggests that government should be conservative in estimates of structural growth and revenue and may require depositing contingency reserves in a stabilization fund, generated from fiscal surpluses during economic booms, and allow withdrawals to finance deficits during recessions. But the creation of these stabilization funds requires not only distinguish transitory from permanent price shocks, but also to lay down rules for a transparent administration.

There are, therefore, significant trade-offs between the two main types of fiscal rules. Firstly, the objective of transparency and simplicity argues for the choice of fiscal rules that are simple and easily monitored (those based on numerical targets for the overall budget balance, the public expenditure or the gross public debt). Nonetheless, such rules do not provide adequate flexibility to accommodate large unexpected shocks nor may they help avoid procyclicality of budgetary policies. In addition, in the case of expenditure rules, they should be complemented by balance- or debt- based rules in order to ensure debt sustainability. On the other hand, cyclically adjusted fiscal balances are regularly used by international organizations and national institutions, but budgetary targets are seldom framed in cyclically adjusted terms. This reflects in part the relative complexity of the techniques used for the estimation of output gaps, long term commodity prices, and budgetary elasticities^{13,14}. Moreover, as time passes subsequent computation of structural measures for a given period can give different results as revisions are made to past data¹⁵. Structural deficit rules also generate a communication nightmare. In summary, fiscal rules which are simpler, more transparent and easily monitored may not help avoid procyclicality of budgetary policies and/or may not provide adequate flexibility to accommodate large unexpected shocks.

¹² There is considerable evidence suggesting that, regardless of the methodology used, the estimates of the output gaps are generally subject to considerable margins of error, especially at the end of the sample period. Indeed, revisions of the gap estimates are often of the same order of magnitude and may even exceed of the gap itself. The above problems are more important in emerging market countries as shocks to trend growth are the primary source of fluctuations in emerging markets, thus blurring the simple distinction between trend and cycle (see Aguiar and Gopinath, 2007).

¹³ See IMF (2012) for an example of three different structural balance estimates for Peru. However, discrepancies in terms of fiscal impulse are smaller.

¹⁴ See IMF (2011b).

¹⁵ See as an example "The pain in Spain will test the euro" by Martin Wolf in *Financial Times* (March 6, 2012).

The application of the fiscal rules can be limited to the national government or can also include other levels of government. Multiple levels of government multiply the possible reasons for failure of fiscal responsibility. Decentralization, which has increased in recent decades, reflecting primarily political pressures, has reduced the central administrative control over subnational fiscal behaviour¹⁶. As a result, subnational governments (SNGs hereafter) now account for substantial shares of public expenditures, in particular social and investment ones. When SNGs are included, provisions can be adopted either with a top-down or a bottom-up approach to ensure that they do not accumulate unsustainable debts and/or contingent liabilities, ultimately requiring either bailouts from the central government or abrupt adjustment programs. The top-down approach under the surveillance of a central authority is usually introduced against the background of past bailouts or under some form of implicit or explicit guarantees to rescue SNGs in distress. Therefore, fiscal rules are especially useful in circumstances where markets cannot exert adequate discipline on national or subnational governments¹⁷. It is far more difficult to establish consistent fiscal rules through a bottom-up approach, in which SNGs may adopt voluntary binding rules which can be ineffective. In that case, the central government must set a proper example and provide incentives for SNGs to adopt prudent fiscal policies. It is also important the particular political structure of the country. The federal countries (Argentina, Brazil and Mexico) tend to be more fiscally decentralized and the national government cannot decide unilaterally. By contrast, in the unitary countries (Colombia and Peru) the constitution gives the national government power to legislate in all areas and to decide unilaterally what powers and fiscal resources it will delegate to SNGs.

Consensus and political commitment to the rules are vital for their success. Rules with no broad social and political agreement are unlikely to be effectively implemented and in cases of major political volatility can easily end up being ignored. When fiscal credibility is low and institutions weak, not only may such rules be fiscally ineffective, but non-enforcement may weaken yet further the fragile institutional context which made them so ineffective to begin with. Schmidt-Hebbel (2010) found that a higher (lower) government surplus (deficit), higher government stability, a higher per capita GDP, a lower dependency ratio and countercyclical government spending raise the likelihood of adopting a fiscal rule. Additionally, such rules can contribute to stability and growth only if they are properly designed and they take into account country-specific historical, cultural, political, and economic conditions (non-renewable resource endowment, fiscal decentralization, and other structural characteristics).

Moreover, the political and social acceptability of a fiscal rule is also likely to be enhanced if they are included in fiscal responsibility laws. These laws extend the concept to rules of procedure that govern the fiscal policy-making process and transparency rules that determine what fiscal information has to be made public and provide accountability mechanisms. Nonetheless, in this survey we will not use such

¹⁶ See Ter-Minassian and Jiménez (2011) for an analysis of fiscal decentralization in Latin America.

¹⁷ The pre-conditions for effective market discipline are indeed demanding: i) credibility of no bailouts; ii) absence of privileged financing channels; iii) availability of reliable and timely information on government finances. They rarely are fully satisfied, even in advanced countries.

broader definition of fiscal rules and we will focus on numerical rules, not procedural ones.

The political costs of breaching the rule will also increase if an impartial body (an independent fiscal watchdog) is charged with overseeing its implementation (rather than making decisions) as it significantly reduces the risks of politically motivated manipulations of the rule. This is especially the case with rules like structural balance based ones, which involve complex and technically demanding calculations. Therefore, fiscal councils work as complements, rather than substitutes, to fiscal rules. In any case, even independent experts are susceptible to the bias of overestimating or underestimating potential growth or commodity prices.

The Argentine fiscal rules¹⁸

The first fiscal responsibility law in Argentina (*Ley Nº 25,152 de Administración de los Recursos Públicos*) was passed in 1999 and it became known to the public as the “fiscal convertibility law”. Following the impact of the Russian crisis and the Brazilian devaluation, Argentina was in recession, deflationary pressures were becoming more and more evident, and concern about the sustainability of the public accounts was spreading within and beyond the country. The strength of the convertibility system was called into question and the fiscal situation was seen as one of its weakest links. With an economy that had stopped growing and financing difficult to obtain, the government had to provide an assurance that it would adjust the accounts in future to whatever extent necessary. Passing *Law Nº 25,152* was a way of doing this. The numerical rules of this law were set to follow a gradual deficit reduction timetable starting in 1999 and culminating with fiscal balance in 2003. Public spending growth was made conditional on GDP growth including the condition that primary spending could not be raised if economic activity declined. The fiscal rule followed a bottom-up approach, inviting subnational governments (provinces) to pass their own fiscal responsibility legislation. A Fiscal Countercyclical Fund was also established, to be financed out of extraordinary concession and privatization receipts and a set percentage of tax revenues. It could accumulate resources up to a maximum of 3% of GDP, to be used during the recessionary phase of the economic cycle. The bill did not contain an escape clause that allowed numerical limits to be breached: the difficulty of raising public financing made it unthinkable for Argentina to increase its fiscal deficit as a countercyclical response to the recession affecting its economy.

The results of *Law Nº 25,152* were disappointing. It was promoted mainly to give positive signs overseas, fulfilling the commitments made with the IMF, get better credit ratings and restore credibility in the markets. But its implementation in the early 2000s coincided with the doomed efforts to prevent the collapse of the convertibility regime, which was ultimately abandoned in late 2001 in the midst of a deep political, economic and social crisis. The deficit limits laid down in the law were modified in 2000 (its first year of implementation) to provide for a longer period of convergence to fiscal balance and then disregarded. At the same time, SNGs were not covered by the

¹⁸ Main sources for this section are Braun and Gadano (2007), IMF (2005) and Melamud (2010).

law, despite being responsible for a large share of the consolidated fiscal deficit. The Fiscal Countercyclical Fund was set up, but it never had the resources to operate in the way it was designed to.

As a matter of fact, in the second half of 2001 (months before the political and economic crisis), the authorities tried to implement an extreme fiscal rule, far more ambitious in scope than the unenforced *Law Nº 25,152*. It was known publicly as the “zero deficit law” and formally enacted by a reform to financial administration *Law Nº 24,156*. It was meant to apply a very simple principle: no more should be spent each month than could be financed out of current public revenues. Although very simple in its conception, the law proved to be wholly impracticable. In fact, when the convertibility system collapsed, this law was ruled unconstitutional by the Supreme Court of Justice. The amendment establishing the zero deficit was removed from *Law Nº 24,156* by an article in the 2003 budget act.

After the crisis of late 2001 the *Law Nº 25,152* remained formally in force but its prescriptions were not complied with or were suspended by articles included in the budget laws for each financial year (f.e., suspending payments into the Fiscal Countercyclical Fund). The scale of the problems that had to be resolved (suspension of payments on the public debt, rescheduling of bank deposits, the breaking of public service contracts, high unemployment) meant that complying with the rules approved by law in 1999 became a non-priority issue to which few paid attention and so numerical targets were continuously breached since 1999.

In 2004 Congress approved a new fiscal responsibility law (*Ley Nº 25,917 Régimen General de Responsabilidad Fiscal*). Under this legislation, for the national government and the provinces which decided to be under the *Law Nº 25,917* (21 out of 24 provinces in 2010): i) the variation in nominal current public spending cannot exceed the nominal GDP growth rate¹⁹ and capital expenditure growth may exceed the GDP increase in those jurisdictions that satisfy the debt indicator criterion or the nominal growth rates of resources (current and capital) exceed the nominal rate of growth of GDP; ii) the public debt service over current revenue (after deduction of revenue-sharing transfers to municipalities) cannot be above 15% for provinces²⁰ and the federal government public debt/GDP ratio has to be reduced in subsequent fiscal years (considering three-year periods for the federal government); and, iii) all jurisdictions are required to balance revenue and expenditure, excluding investment in basic social and economic infrastructure (most capital spending) and current spending financed by international financial institutions and those provinces in which the debt criterion is not fulfilled (as set in ii)) should achieve a primary surplus. Additionally, all administrations are enjoined to create fiscal countercyclical funds.

The vicissitudes of Argentina’s testing relationship with the IMF and the conditional financial assistance provided by the central government to the provinces strongly influenced the substance of *Law Nº 25,917*. The Argentine government in

¹⁹ Except for periods of negative nominal GDP growth when nominal primary spending at most can stay constant.

²⁰ In those cases which exceed the limit, five-year plans that tend to locate within the parameters have to be designed.

2003 committed to send two bills to Congress in order to sign a 3-year *stand by* agreement with the IMF: a revised tax revenue-sharing (with the provinces) law and a new fiscal responsibility legislation. But the Executive only presented the bill for the fiscal responsibility law. However, the relationship between the national government and the provinces was an issue that permeated the contents of the law.

The complex fiscal and financial relationship between the centre and the provinces, dominated by the delayed reform to the federal revenue-sharing regime, was significantly affected by the crisis of 2001. Provinces in Argentina have strong constitutional rights. Expenditure is fairly decentralized, tax collection centralized and intergovernmental fiscal relations leave the federal government substantial discretion in assisting provinces in financial distress. A number of subnational administrations had increased their expenditure and borrowings too far during the boom period in the nineties and were having the utmost difficulty in adapting to a less favourable environment. As revenues and financing dried up, many administrations had resorted to issuing quasi-currencies as the only way of meeting basic administrations costs, principally the salaries of public-sector employees. By February 2002, the new national government had reached a fiscal agreement with the provinces that was designed to resolve the most critical aspects of the situation²¹. The debts of the provinces were assumed by the national government by means of a debt swap which converted foreign currency debts into peso-denominated debts at an exchange rate of 1.4 Argentine pesos per dollar. The new debt of the province to the national government had a lower net present value, a longer repayment period (16 years), a 3-year grace period and a lower real interest rate (2%). In return for financial assistance from the federal government, some administrations in the greatest fiscal and financial difficulties undertook bilateral agreements with the centre known as ordered financing programmes (PFOs) to reduce their imbalances and to not increase their borrowings. As collateral of the loans, the provinces agreed to transfer their rights over federal revenue-sharing resources to the national government. The agreements included penalties for non-compliance by the provinces.

The PFOs strongly influenced the contents of the *Law Nº 25,917*, which became a means to give greater institutional backing to these bilateral financing agreements between the national government and the provinces. This law followed a bottom-up approach for subnational finances but was adopted by most of the provinces (21 out of 24). The fiscal rules share with the PFOs the goal of capping the provinces' public debt, and contain similar penalties for non-compliance. But these penalties are rather vague and leave their specification to the internal charter of a fiscal watchdog (*Consejo Federal de Responsabilidad Fiscal*), which was created to oversee and coordinate the application of the law. Its members are representatives of the national and provincial governments and it is empowered to impose penalties for non-compliance that ranges from public disclosure of any breaches to the partial withholding of budgetary transfers from the centre (other than revenue-sharing resources), although the federal government has the power to veto any penalty. Also in the interests of fiscal transparency, this law established an obligation to prepare and publish standardized

²¹ *Acuerdo Nación-Provincias sobre Relación Financiera y Bases de un Régimen de Coparticipación Federal de Impuestos*, signed on 27 February 2002 and ratified by *Law Nº 25,570*.

multiyear budgetary information for the national government and provinces. Each year, the national government was obliged to present a macrofiscal framework that would be used as an input for preparing the budget in all administrative districts.

Regarding the record of the new law, as public revenues grew along with economic activity, Argentina improved significantly its fiscal accounts in recent years²². However, as seen in Table 2, the most important numerical rule of the new law (adjusted primary spending grew by more than GDP) has been met since 2007 thanks to the deduction of certain expenses from the current public spending: i) in 2007 and 2008, public expenditures made in education to fulfill the goals of Article 2 of *Law No. 26,075* (increase of public investment in education); and, ii) in 2009, 2010 and 2011, *Law No. 26,530* was passed to face the recent financial crisis allowing a more expansionary fiscal policy. In addition, *Law No. 26,124* (passed in August 2006) grants “emergency superpowers” to the President, leading to a virtual suspension of the fiscal rules and giving the government flexibility to allocate spending items within the budget. Lastly, the monitoring body established by law (*Consejo Federal de Responsabilidad Fiscal*) is not independent.

In summary, institutional weakness where the executive amends laws with frequency and ease makes hard to imagine that a fiscal responsibility law might significantly constrain the decision-making of those in government. Regarding provinces, many of them complied with some of the law’s procedural requirements, but some of them were not meeting the quantitative targets even before the onset of the global crisis in 2009. After this, a *Programa Federal de Desendeudamiento* (*Decree No. 60/2010*) allowed a new restructuring of eligible provincial debts, affected by the deterioration of their fiscal balances. Eighteen provinces have benefited from such programs.

Lastly, it is worth mentioning the Argentine GDP-indexed bonds²³. They were introduced in the context of its 2005 debt restructuring, as a mechanism which could play a complementary role in reducing the pressure to implement contractionary fiscal policies in downturns. These instruments are linked more closely with the requirements and the ability of the country to service its debt obligations.

The Brazilian fiscal rule²⁴

Fiscal results in Brazil showed a significant deterioration after the *Plan Real* was adopted in 1994. This deterioration in fiscal performance was somewhat expected, since the drop in inflation meant the end of an important stabilizing factor of a balanced budget. The significant increase in discretionary spending and the increase in interest payments, resulting from high interest rates set by the central bank to maintain the strength of the exchange rate, also contributed to this deteriorating public finances. All these elements led to a significant expansion of the funding needs

²² Argentina experienced a public debt default at the end of 2001 and a restructuring of the public debt in 2005 (with a large haircut) that substantially reduced debt service obligations in the period and which could give a misleading picture of the fiscal consolidation effort when viewed from the perspective of developments in the different measures of the fiscal deficit.

²³ The Argentine government does not pay a certain coupon if GDP growth is below 3%.

²⁴ The main source for this section is IMF (2009a) and the literature cited therein.

of the public sector and increased public debt, which was also increased by the cost of bank restructuring plans²⁵.

A broad effort to improve Brazilian public finances began in the mid 1990s. In particular, a subnational debt restructuring program was launched in 1997²⁶. As a result, the federal government entered into bilateral contracts with most states which included a program of fiscal adjustment and debt reduction in exchange for help with unsustainable subnational debt²⁷. The contracts/programs proved to be key not only to achieve subnational fiscal consolidation (25 out of 27 signed the rescheduling agreement)²⁸, but also as an effective tool for fiscal coordination in the federation.

In 1998, Brazil adopted a Fiscal Stabilization Program and reached an agreement with the IMF that sought to increase the primary surplus of federal and subnational entities (heavily based on tax increases), restructure debt, reform the budget process and promote a reform of the administration and social security. The adoption of a fiscal responsibility law in 2000 (*Lei de Responsabilidade Fiscal e Finanças Públicas Municipais*)²⁹ was a key milestone. Being a complementary law (almost constitutional level), it requires a qualified majority (two-thirds) for approval and modification, and it is binding for all entities of the public sector at all levels of government. It introduces the use of fiscal targets (primary surplus) and spending/debt limits. It does not specify quantitative targets or limits for all items, but requires that they are specified in separate legislation and regulations. Among them:

- The target is defined in terms of the primary balance³⁰, is expressed in levels in the annual Law on Budget Directives and is binding for the first year (although parliament can change it during the year). It must also include projections for the budget balance, expenditure and debt for the two following years and a description of fiscal risks with an assessment of contingent fiscal liabilities.

- The ratio of net public debt-to-net revenues cannot exceed 3.5 for the federal government, 2 for states and 1.2 for municipalities.

²⁵ See Giambiagi and Ronci (2004) for an analysis of the evolution of fiscal policy during the Real Plan and thereafter.

²⁶ *Ley Nº 9.496 de 1997*. The relation between the federal government and states are marked by a history of bailouts until the mid-1990s. Major rescue operations by the federal government include bailouts in 1989, 1993 and 1994. Each initial agreement that tried to resolve a crisis actually made the next crisis more likely, because they reinforced the perception that the federal government would provide debt relief reducing the effectiveness of market discipline. See Bevilaqua (2000) for further discussion.

²⁷ Federalism in Brazil revived in the 1980s with the return of democracy from military rule. The 1988 constitution gave states significant authority and resources, including a much broader revenue base for the state-level VAT, but did not specify their spending responsibilities or set rules for fiscal prudence.

²⁸ The Federal Government assumed the state debts and refinanced it in 30 years with fixed 6% real interest rate. Each state was committed to a monthly payment up to an amount equivalent to 13 percent of its net revenue. If the amount due exceeded this limit, the difference is capitalized to the debt stock. It was the first time that the bailout was followed by an explicit obligation on the part of the states to commit themselves to an agreed-upon fiscal adjustment program, including a declining path for the state debt.

²⁹ The Brazilian experience is also valuable for the public consultation process that spanned to a high degree of consensus.

³⁰ The primary balance target was chosen at a time when securities paying floating interest rates and indexed to the exchange rate represented the bulk of traded public debt and, therefore, the debt-to-GDP ratio was extremely sensitive to these variables.

- There are also specific limits on new spending and borrowing in the last year of a government.

- There are maximum limits on personnel expenditure, as a proportion of net current revenues (federal: 50%, states: 60% and municipalities: 60%) and include both active and retired public servants.

- Any new permanent expenditure has to be “affordable”: it cannot be created without reducing other expenditure or introducing new taxes.

- The law strengthens the institutional fiscal framework of all areas of budget preparation, implementation and reporting (2-monthly, 4-monthly, annual).

The law puts strong emphasis on procedural and transparency rules. It also includes procedures to monitor implementation of targets, corrective measures to be taken in case of any breaches and respective sanctions for all levels of government (including institutional and personal sanctions -fines, dismissal, prohibition to run for elections and even jail)³¹. The law includes flexibility clauses which are triggered by a significant deceleration in economic activity³² or a natural disaster but can only be invoked with Congressional approval.

The law also places a series of restrictions on relations between public agencies and levels of government to prevent bail-outs, monetization of deficits, and misuses of public financial institutions. In particular, it prohibits any new credit arrangement between entities of the public sector, as well as the direct deficit financing of any kind by the Central Bank. Furthermore, state-owned financial institutions are prohibited to lend any money to their controlling agency. Despite provisions in the law, no institution is mandated to provide an independent view on the government's proposed fiscal framework, policies, and macroeconomic assumptions.

Fiscal performance in Brazil started to improve before the implementation of the *Lei de Responsabilidade Fiscal e Finanças Públicas Municipais* and remained strong after adopting it. As seen in Table 3 the fiscal targets were reached but expenditure growth in real terms picked up significantly since 2003 (stronger economic performance leading to higher tax collection contributed to reaching the targets). Net public debt (excluding the state-owned utilities Petrobras and Electrobrás) declined steadily from its peak in 2002 of 60% of GDP to around 40% of GDP in 2010, but gross debt remains relatively high in comparison with other emerging economies. The composition of debt also changed during the period, with a reduction in the share of foreign currency debt (external public debt is well below FX reserves at the central bank), a lengthening in average maturity and a rise in the share of fixed-rate instruments. In addition, the institutional framework required by the law has also improved reporting, accounting, and transparency (ample and more frequent reporting on fiscal developments and easier access by the public to fiscal data).

Significant changes to the law have been introduced in recent years. A sovereign wealth fund was established in 2008 (*Fundo Soberano do Brasil*) to be used as a

³¹ The *Lei de Responsabilidade Fiscal e Finanças Públicas Municipais* is supported by a Fiscal Crime Law.

³² Negative or economic growth below 1% in the previous four quarters let governments have a longer period to adjust to limits imposed by the law.

countercyclical instrument. The fund also aims at smoothing exchange rate volatility and promoting investment. So far, it has been used only to accumulate part of the fiscal overperformance in 2008 (0.5% of GDP injected in 2009). Incentives embodied in the fiscal framework do not seem to be sufficient to put money aside during good times. The fiscal target was also modified by the introduction of an investment adjustor, which allows the government to exclude part of the investment spending from the calculation of the target. An additional modification of the target resulted from the exclusion of Petrobas (the state oil company) from the fiscal targets starting in 2009.

The international financial crisis in 2008-09 put the fiscal framework to the test and Brazil was able to adopt countercyclical fiscal policy apart from the full operation of automatic stabilizers (mainly through temporary and targeted tax cuts and a reduction of the primary fiscal balance target). In addition, the government also started to give loans to public banks, which have been recorded as transactions in financial assets with no impact on the fiscal target (quasi-fiscal operations). While the fiscal response to the crisis was effective, there was a weakening of fiscal transparency and the credibility of the fiscal framework may have suffered (uncertainty about the use of the investment adjustor, the exclusion of *ad hoc* expenditures or about how to account for sizeable policy lending).

The Chilean fiscal rule³³

The adoption of a structural budget balance-based rule was announced in May 2000 by President Lagos, following intense technical preparations in the early months of his mandate. Chile's fiscal rule seeks to insulate expenditure from cyclical fluctuations of real GDP growth and key mineral export prices. The adoption came at the end of a long period during which the public debt was reduced from 165% in 1985 to 20% of GDP in 2000 and with the intention of solidifying and codifying the emerging fiscal discipline. The institutional coverage applied in the construction of the structural balance (not the primary structural balance) is the Central Government (excluding public enterprises, municipalities and public universities).

In summary, the fiscal rule follows three steps. First, cyclically adjusted revenues (t) based upon trend growth and long-term copper prices are estimated. Second, a target for the cyclically adjusted balance is set (b^*). Third, government spending (g) is derived. Once a target is set for a year, the rule only allows the operation of automatic stabilizers.

$$g_t = t_t - b_t^*, \text{ with } g, t \text{ and } b^* \text{ as percentages of GDP in a given year.}$$

All the variables and parameters used in the calculation of the structural balance were initially estimated by the Ministry of Finance, but within a year or so, with a view to strengthening the credibility of the estimates, the government appointed two panels of independent experts to set them (the trend GDP Committee and the Committee of the reference price of copper which offer values of fundamental parameters for the estimation of cyclically adjusted revenues). It also made changes in

³³ Main sources for this section are Caballero *et al.* (2011), Dabán (2011) and Ffrench-Davis (2010).

response to the composition of public revenues, as adjusted for the molybdenum price (average of the last seven years since there are not a sufficient number of experts to set a committee) and private mining (which recorded a significant increase as a proportion of revenues). In addition, adjustments are made to public spending during the year, aimed at meeting the target *ex post*.

The cyclically adjusted target for the central government was initially set at a surplus of 1% of GDP (from 2001 to 2007) in order to yield resources to recapitalize the central bank, lower the public debt-to-GDP ratio, accumulate financial assets, as counterpart to the ongoing gradual depletion of copper resources and prefinance contingent labour liabilities as well as social benefits (guaranteed minimum pensions and old-age benefits). Having achieved these goals, the target was reduced to a surplus of 0.5% of GDP in 2008 and to balance in 2009 and 2010 to support the economy during the global crisis. In fact, there is no limit to the possibility of changing the target, not even any standard procedure to do so.

Compliance with structural balance targets in Chile is not legally binding and the rule does not establish the path of return when there are deviations from the goal and does not provide penalties resulting from these deviations. However, successive governments have reiterated their commitment with set targets and mostly complied with them. The 2006 *Ley N° 20,128 sobre Responsabilidad Fiscal* institutionalized key aspects of the structural balance rule framework (without forcing the government to commit to a specific target not specifying procedures for its calculation). This law also included the creation of the *Fondo de Estabilización Económica y Social*³⁴ where overall fiscal surpluses are deposited and deficits can be financed from. Its value declined from a peak of \$22.7 billion (13.3% of GDP) in 2008. This drop was the result of withdrawals of \$9.4 billion (5.8% of GDP) in 2009 aimed at propping up growth without resorting to international assistance. This fund totalled \$13.2 billion (5.4% of GDP) in December 2011. Another fund (the *Fondo de Reserva de Pensiones* with a pre-specified range for annual deposits as a ratio to GDP) was also created to face pension liabilities in the future and totalled \$4.4 billion (2.1% of GDP) in December 2011. Moreover, to prevent that the growth of both funds generated a domestic credit boom, the deposits were made offshore. A financial advisory committee (*Comité Financiero*) supervises both Funds as embedded in the 2006 law.

Various analyses³⁵ have found evidence that the Chilean structural balance rule together with the stabilization fund have contributed significantly to reducing procyclicality, spending volatility, output volatility, interest rate volatility, appreciation of the real exchange rate in boom times and sovereign risk. The rule, while undergoing technical modifications over time, was met throughout the period in a situation of strong consensus and political support for the rule, but was somewhat eased in the last years before the financial crisis. Thus, during the period 2000-05 the average growth of public spending was very close to GDP growth (4.4% and 4.3%, respectively). However, in the period 2006-08 public spending shows an average increase of 8.1%,

³⁴ The *Fondo de Estabilización Económica y Social* received its first contribution on March 6, 2007, through a contribution of \$2,580 million from the *Fondo de Estabilización de los Ingresos del Cobre* dated from 1981.

³⁵ See Marcel (2010) and Frankel (2011) for details.

while GDP grew by only 4.3%. And the fiscal stimulus package announced in January 2009 to underpin economic growth in the aftermath of the global financial crisis moved further away the structural outcome of the goal of 0%³⁶ (see table 4). The rule requires only that fiscal policy be acyclical³⁷ and the government went beyond this and undertook an active countercyclical policy to face the international crisis on a discretionary basis through relaxation of the target and methodological adjustments aimed at maximizing cyclically adjusted revenue (a *de facto* escape clause). This led to target underperformance, intertemporal inconsistency of the indicator and reduced transparency to calculate the structural balance (from adjusting two components in 2001 to adjusting 12 in 2009). In turn, it eroded the rule credibility³⁸, put significant strain on the rule-based fiscal framework and brought to the fore some shortcomings of the fiscal rule (among them, no sanctions when the realized budget differs).

As a result, seeking to address some shortcomings of the rule and the fallout from the global crisis, an *ad hoc* high-level technical advisory committee to the Ministry of Finance (the *Corbo Commission*) has released recommendations to improve and simplify the methodologies used to calculate the structural balance, and increase the transparency and accountability of the fiscal rule. Authorities have yet to decide which they will adopt and when (although some of them are expected to be put in place starting in 2012). Some of the recommendations for the rule upgrading are³⁹:

- Inclusion of a countercyclical factor (a discretionary action), as the fiscal rule based on a structural budget balance is acyclical. The fiscal target as a percentage of GDP in a given year (b^*) would consist in that case of the cyclically neutral target, to be set at the beginning of the four-year presidential term, plus a countercyclical component. This countercyclical component is to be activated by a predetermined negative output gap and would be subject to two constraints: i) take the form of nonpermanent expenditure changes and/or temporary tax adjustments easily reversible; and, ii) a ceiling of 0.5% of GDP per annum.

- Escape clauses: Target compliance can be temporarily suspended in the event of a significant shock (natural catastrophes, military conflicts or major economic crisis). Post-crisis convergence to the target is to be gradual, but it should not exceed three years in order to maintain intertemporal fiscal strength.

- Primary spending should be the basis for the fiscal rule. This would insulate the cyclically adjusted balance from interest rate changes and procyclical bias of revenue coming from rule-based asset accumulation (return on accrued financial assets may not be in line with the long-term interest rates).

³⁶ The public sector size, measured as the ratio government expenditure-to-GDP, rose consistently from 18.1% in 2006 to near 25% in 2009.

³⁷ There is a terminological question regarding this issue: do automatic stabilizers constitute countercyclical fiscal policy?

³⁸ In 2009 conceptual changes were also introduced relative to transition from a balance in which only the cyclical effects were adjusted to a balance in which the revenues adjustment was intended to follow a kind of permanent income concept (transitory taxes, changes in the elasticity of non-mining taxes, change in the methodology for estimating long-term price of molybdenum and incorporation of cyclical adjustment for the effect of interest income on financial assets).

³⁹ See Caballero *et al.* (2011).

- Copper price smoothing: The impact of sharp changes in the estimated long term copper price on cyclically adjusted revenue and, therefore, on spending should be smoothened by either adjusting the fiscal target or estimating its trend price.

- *Ex post* target compliance: midyear monitoring and correction of cyclically adjusted balance deviations from its target. This requirement would be mandated by law.

- Exclusion of transitory fiscal provisions. The cyclically adjusted balance would exclude the impact of temporary fiscal measures such as tax hikes or reductions. This would prevent financing permanent spending with transitory revenue.

- Elimination of the cyclical correction on the return on accrued financial assets.

- Establishment of an independent fiscal council to evaluate the fiscal rule methodology, provide assumptions and projections for variables required to calculate the cyclical adjustment, assess medium-term and long-term sustainability, evaluate cases when exit clauses are invoked, etc.

After incorporating the recommendations on the methodology of estimating the structural balance presented by the advisory committee in its report, there was a reassessment of the results of structural balance which are shown in table 4. Given these changes, the structural deficit as a percentage of GDP for 2009 was reestimated from 1.1% to 3%. Additionally, after the earthquake and tsunami of February 2010, the Piñera administration, to finance the substantial cost of reconstruction (4.2% of GDP), opted for a package of temporary and permanent increases in taxes and spending reallocations and announced that it could not commit to restoring balance to the structural fiscal result by the end of its time in office. As a consequence, the new government proposed a goal of convergence of the structural deficit to 1% of GDP in 2014, reducing the structural deficit each year.

The Colombian fiscal rules⁴⁰

The Colombian 1991 Constitution states that the country is a state organized in the form of a single, decentralized Republic with autonomous subnational divisions. The Nation is required to transfer funds to SNGs to finance education, health, potable water and other general purpose services. These funds are very rigid and cannot be used to cover any debt. Another important transfer comes from the royalties from the extraction of nonrenewable resources. Apart from it, SNGs are free to regulate taxes tied to consumption, property taxes and fines and penalties.

Colombia's early fiscal rules were applicable only to SNGs and aimed to strengthen central government's control over subnational debt, within the context of increasing political decentralization. The first law (*Ley N° 358 de Semáforos*) was passed in 1997. It introduced a rating system for territorial governments to show solvency and sustainability based on debt indicators, banning borrowing (nationally or internationally) for highly indebted local governments through financial institutions or through the capital market (red light) and requiring authorization from the Ministry of Finance for intermediate cases (yellow light). The entities with poor ratings were required to implement fiscal stabilization plans. The law was not effective and many red light local governments were able to incur new debt, including by presenting

⁴⁰ Main sources for this section are Lozano et al. (2008) and Comité Técnico Interinstitucional (2010).

defective financial information. Subnational debt still grew by 15 percent a year in 1998-2000. A new law (*Ley Nº 617 de Responsabilidad Fiscal Territorial*) was passed in 2000 and established a set of rules for SNGs, limiting operating expenditures based on the entity's freely disposable revenues, and also requiring fiscal adjustment plans in case of noncompliance with the laws, to be monitored by the Ministry of Finance.

A law applicable to all levels of government (*Ley Nº 819 de Responsabilidad Fiscal*) was passed in 2003⁴¹, containing both procedural and numerical rules. Before June 15 each year, the National Government has to present to the Economic Commissions of the Senate and the House of Representatives, a *Medium Term Fiscal Framework*, which will be studied and discussed during the first debate of the Law annual Budget. This report states fiscal and macroeconomic objectives. On numerical rules, the law requires that fiscal management at all levels of government be consistent with debt sustainability. Each year the central government determines a primary surplus target for the next year for the nonfinancial public sector (NFPS) and indicative targets for the primary surplus of the ten following years and the corresponding debt trajectory⁴². This target will be approved by the *Consejo Nacional de Política Económica y Social, CONPES*, upon advice of *Consejo Superior de Política Fiscal, CONFIS*. The report must include, in case of failure to meet targets set in the *Medium Term Fiscal Framework* last year, an explanation of any deviation from the goals and steps to correct them in a way that the sustainability of public debt is ensured. Table 5 shows the NFPS primary surplus targets for the next year as set in the *Medium Term Fiscal Framework* report and its realization since 2005.

Ley Nº 819 de Responsabilidad Fiscal also reinforces the indicators established in previous legislation (e.g., ceilings on debt service, the ratio of debt stock to current revenues, debt stock, and expenditures). SNGs may take out loans if they meet certain criteria in terms of amount of indebtedness, term, and method of payment, among other things. Noncomplying entities are required to implement fiscal adjustment plans and official guarantees for debt refinancing purposes apply only to SNGs undergoing these adjustment plans. Personal sanctions for public officials also apply according to the Disciplinary Law. The law fosters market enforcement mechanisms by applying bankruptcy procedures to municipalities (*Ley Nº 550* of 1999) and requiring main municipalities and departments to obtain credit ratings from private companies. All the debt regulations for SNGs were put in place when overall credit metrics were highly stressed for them. Today's financial discipline has considerably improved as local governments have posted surpluses since 2001. However, the deficit of the central government has remained large.

In 2011 constitutional amendments were approved in Congress. It included: i) the incorporation of the criterion of fiscal sustainability in the Constitution (articles 334, 339 and 346); ii) a more efficient management of the royalties⁴³; and, iii) the adoption

⁴¹ This law was complemented by Decreto 4730 in 2005.

⁴² The primary surplus targets, on average, may not be less than the structural primary surplus which ensures the sustainability of debt.

⁴³ The reform on royalties (articles 360 and 361 of the Constitution) means that resources from that source will focus on science and technology, retirement savings, regional development projects, physical

of a fiscal rule on central government finances (*Ley N° 1,473*). This fiscal rule is modelled on the Chilean one and specific regulations are being developed⁴⁴. The aim is to ensure fiscal discipline, enhance countercyclical fiscal policy, and improve the management of commodity revenues. As of 2014, fiscal policy will be guided for the achievement of cyclically adjusted balance target (b^*) of the central government⁴⁵ according to the following expression (variables are defined as percentages of GDP):

$$b_t = b^* + \alpha y_t + ccip_t,$$

where b is primary fiscal balance, b^* is the targeted structural primary balance (primary balance adjusted for economic, commodity cycles and extraordinary items); y is the output gap (as a % of potencial GDP) and $ccip$ represents the excess oil revenues (from either higher than expected oil prices or production above a determined baseline) generated by Ecopetrol, the national oil company, and from other minerals. Spending by the central government will be, therefore, a function of trend real GDP growth and the long-term oil and other mineral prices. The targeted primary structural deficits (b^*) are no higher than 1% of GDP from 2022 onwards with a transitory period (lower than 2.3% in 2014 and lower than 1.9% in 2018). They are determined by the primary balances which allow to reduce public debt from 45% of GDP in 2011 to below 30% by 2020 (level of debt consistent with an investment grade according to international evidence for emerging countries). Related to this proposal, while it appears to make sense to delay a fiscal adjustment until economic recovery is better rooted, the bulk of the effort is reserved for the second half of the decade. This raises uncertainties about shifting political or economic winds in the coming years. The parameter α is defined as the sensitivity of fiscal balance to the output gap and aims to combine two elements: a countercyclical fiscal policy (0.18) and automatic stabilizers (0.12). Therefore, the value of α is 0.3, which means that the primary balance can deviate from its goal (b^*) in 0.3% of GDP for each point of the output gap.

Taking another cue from Chile, excess oil revenues would be used to prepay debt and to capitalize a sovereign wealth fund (*Fondo de Ahorro y Estabilización Fiscal y Macroeconómica*) managed by the central bank. The approved legislation on fiscal rule also includes escape clauses⁴⁶ to cope with large exogenous shocks which could jeopardize the macroeconomic stability of the country and the setting up of a council of independent experts (*Comité Externo para la Evaluación de la Regla Fiscal*) to advise the government on technical issues and to verify the fulfillment of the fiscal rule every

investments in education and public savings. The administration of such resources will be carried out by territorial entities and will be overseen by the central Government.

⁴⁴ Rulemaking of various matters is still pending, including the definition of structural deficit, countercyclical expenditure, and exceptions to compliance to the fiscal rule.

⁴⁵ The authorities opted for a fiscal rule focused on the central government on the grounds that it was preferable to define targets on variables that were under the direct control of the government in spite of the fact that if the fiscal rule had covered the consolidated public sector the overall debt target had been better anchored.

⁴⁶ Countercyclical fiscal stimulus is permitted if the projected growth rate falls at least two percentage points below the long-term growth rate and the output gap is negative. The fiscal stimulus has to be below 20% of the estimated negative output gap and will be transitory as it has to be dismantled completely over a period of two years, with a requirement that in the first year of that period the economy should register an economic growth rate equal to or greater than its real economic growth in the long run.

year. And the rule contemplates a notional or control account, which records the deviations between the results at year's end and the target. When the accumulated notional account reaches -0.5% of GDP, the government must set goals in the next two years (0.3% of GDP in the first year and 0.2% of GDP in the second) to correct it. If the difference exceeds this limit, it must be fully corrected in the following year, in addition to the adjustment already planned.

The Mexican fiscal rule⁴⁷

The *Ley Federal de Presupuesto y Responsabilidad Hacendaria* was adopted in 2006. Apart from requiring the government to present the annual budget in the context of a medium-term framework with projections covering the subsequent five years, the law established a zero fiscal target for the “traditional” public sector balance (which includes the federal government, two social security systems and some public enterprises -including the national company PEMEX- but excludes state and local governments), mechanisms for budgeting under oil price uncertainty and a system of oil funds. Oil plays a very important role in the public finances as oil-related revenue accounts for 30-40 percent of total revenue. As the rule targets a cash balance, the rule excludes accruals registered under long-term contracts to develop and manage infrastructure projects (PIDIREGAS), the impact on the fiscal balance of state owned development banks, etc. (the so-called “augmented” balance). Therefore, the rule for the so-called “traditional” balance can be written when designing the budget as

$$G - T(P^*, Y^*) = 0,$$

where G = public sector expenditure; T = public sector revenue; P^* = oil price parameter in the budget which for each year is projected using a reference oil price, with a weight of $\frac{3}{4}$ being given to oil futures prices and a weight of $\frac{1}{4}$ to the average oil price of the last 10 years; and, Y^* = expected output. So that when extra revenues (ER) are observed (from oil prices being higher than the reference price and/or observed output being higher than expected output),

$$G - T(P^*, Y^*) - ER(P - P^*, Y - Y^*) = 0,$$

they may first be used to compensate for certain nonprogrammable budget overruns (natural disasters, f.e.). The remainder is split among 4 first-tier funds⁴⁸ (oil, pensions' restructuring, PEMEX and investment by federal entities). Once the first tier reserve funds reached their statutory ceilings (totaling about 1.5% of GDP), any subsequent excesses were to be allocated to a second tier of funds that finance investment by subnational governments (50%), PEMEX investment (25%), and a fund to finance future costs of pension reform (25%). If over the course of a fiscal year expected revenue does not meet projections (f.e., actual oil revenues turn out to be lower than budgeted due to lower oil prices or exchange rate effects), the government

⁴⁷ The main source for this section is IMF (2010b).

⁴⁸ Mexico implemented an oil stabilizations fund in 2000. A part of government revenues in excess of budgeted amounts was to be transferred to the fund. At first, fund resources could only be used if oil export revenues fell by more than US\$1.5 a barrel below the reference oil price in the budget. In 2002, the rules were changed to allow for full compensation of shortfalls. During that year the fund's accumulated resources were fully drawn.

can cut expenditures to balance the budget or the stabilization funds may make transfers to the budget to cover the shortfalls. However, since the law placed a cap on the saving of excess revenues, by the end of 2008 these funds amounted to 1.8% of GDP, despite an unprecedented boom in oil prices. Without this ceiling on savings, the authorities would have had greater capacity to pursue countercyclical policies during the crisis. In any case, by December 2011 the funds contained the equivalent of just 0.3% of GDP in assets as the authorities paid for the oil hedge⁴⁹, increased PEMEX investment and diverted money to infrastructure spending.

Important developments concerning the fiscal framework took place in 2008-10, at a time when the Mexican economy was hit by the global financial crisis. Fiscal stimulus measures were adopted between 2008 and 2009 amounting to 2.5% of GDP (increased transfers to low income families and communities, increase in public investment, and injection of additional credit, channeled primarily through the state-owned development banking system, with priority to small and medium-sized enterprises). But this countercyclical easing in the midst of a deep recession of the Mexican economy was only possible because some decisions were adopted concerning the *Ley Federal de Presupuesto y Responsabilidad Hacendaria*. In October 2008 the law was adapted such that from 2009 PEMEX will no longer make investments through the scheme known as PIDIREGAS which was out of the “traditional” balance. But the target for the “traditional” rule embedded in the fiscal rule excluded the PEMEX investment. The congress also approved a modification of the balanced budget target of the Fiscal Responsibility Law⁵⁰, which as can be seen in Table 6 eased the fiscal stance by about 0.6 percent of GDP in 2009. Exceptional circumstances were also invoked in the budgets of 2010 and 2011 to maintain moderate fiscal deficits in those years. In late 2009 and early 2010 in a bid to strengthen the sustainability of fiscal policy in the medium term and with the first signs of domestic economic recovery, the authorities adopted a package of fiscal measures to reduce the public deficit gradually.

Also in 2010 the caps on the accumulated resources in some of the funds were waived temporarily for 2010 and 2011, with the intention of ultimately removing them permanently in the fiscal rule. This would make the fiscal position more symmetric over the business cycle. At the end of 2011 the stabilization funds had accumulated 0.8% of GDP.

The Mexican *a priori* balanced budget rule is pro-cyclical as it implies high public spending when economic activity and revenues are buoyant, and spending restraint when economic activity and revenues are weak. Many analysts also suggest that the government should consider accumulating a buffer of financial assets not only during economic upturns but over the business cycles as a whole to reduce this cyclical vulnerability of the public finances and increase the authorities' capacity to counter the impacts of negative shocks on public revenues. Additionally, the balance budget is

⁴⁹ In the last years the Mexican government has limited revenue volatility by hedging oil revenues against declines by buying put options on financial markets. The put options provide the government with an oil price similar to that in the budget, even when oil prices fall well below the budgeted price as during 2009.

⁵⁰ This requires explicit justification on the part of the legislative branch and must provide a plan for returning to zero balance.

done on a year-by-year basis and lacks a broader medium term outlook of three to five years. Apart from these needs, the Mexican sustainability of fiscal policy faces two major structural problems: (i) the decline in oil production which has been offset by the significant increase in oil prices; and, (ii) the low rate of non-oil taxation as the domestic tax burden is well below that of countries at similar levels of development⁵¹.

The Peruvian fiscal rules⁵²

Fiscal performance in Peru improved up until the mid-1990s, with the overall balance of the nonfinancial public sector reaching a surplus in 1997. However, fiscal performance deteriorated in the following years: the overall surplus achieved in 1997 had turned into a deficit of 3 percent of GDP by 1999, with public debt rising to nearly 50 percent of GDP. Therefore, as a permanent institutional device to promote fiscal discipline in a credible, predictable, and transparent manner *Ley N° 27,245 de Prudencia y Transparencia Fiscal* was enacted in December 1999 and came into effect in 2000.

The law contained both procedural and numerical rules. The numerical rule includes caps on the public balance and on the real current expenditure for the nonfinancial public sector and general government, respectively. It allowed for an overall non financial public sector deficit of up to 1% of GDP from 2002 (the deficit ceilings for 2000-02 featured a declining path, from 2% of GDP in 2000 to 1% of GDP in 2002), while capping the increase in real nonfinancial expenditures of the general government to 2%, using the GDP deflator to calculate the nominal increase. Also during the first seven months of an election year, nonfinancial expenditure of the general government cannot exceed 60 percent of the budgeted annual amount; and the fiscal deficit of the nonfinancial public sector in the first semester of an election year cannot exceed 50 percent of the budgeted annual deficit to prevent outgoing administrations from engineering an opportunistic fiscal expansion. Sanctions are only institutional. There are no specific individual sanctions, but officials must comply with the fiscal rule according to the rules and principles of the Law on Ethics of Public Service. The law also included an escape clause that allowed for a temporary (one year) relaxation of the target in case of national emergency or international crisis. It had to be approved by Congress at the request of the Executive. Moreover, when there was sufficient evidence (with a report from the Minister of Economy and Finance) that the GDP was declining or could decline in the following fiscal year, the deficit target could be missed (never exceeding two per cent of GDP).

The *Ley N° 27,245* was partially modified in 2003 (*Ley N° 27,958 de Responsabilidad y Transparencia Fiscal*) with a clear objective of debt consolidation due to the fact that in 2002-03 regional governments were created and obtained substantial fiscal autonomy, including the right to borrow⁵³. The national government

⁵¹ In the last 20 years non-oil revenues averaged just fewer than 10% of GDP.

⁵² The main sources for this section are IMF (2010a) and IMF (2012).

⁵³ Decentralization came relatively late to Peru, as part of a democratic reaction after Fujimori's exit in 2001. The 2002 decentralization law foresaw having half or more of public sector spending managed

transferred important responsibilities and fiscal resources to regional governments and reinforced the existing local (municipal) governments. In fact, both levels of subnational governments doubled their budget revenues in only five years. However, they are mostly financed by national government transfers instead of own collected taxes. The fiscal rules applicable to SNGs are established in the Legislative Decree Nº 955 (*Ley de Descentralización Fiscal*) in 2004: i) the relationship between the annual total debt stock and the current revenue of regional and local governments should not exceed 100 percent; ii) the ratio of annual debt service to current income must be below 25 percent; and, iii) the moving average of the primary outcome of three years must show a positive value for each regional and local governments. The fiscal rule also provides that failure of fiscal rules in the regional and local governments restrict access to intergovernmental funds⁵⁴ and that the government through Emergency Decree can adopt fiscal measures aimed at stabilizing public finances of these entities. SNGs need the central government's guarantee to contract external debt, which must be allocated to finance infrastructure. However, there have been high and increasing rates of non-compliance at the subnational level and no SNG has received sanctions. This is probably due to the fact that the subnational public finances in Peru never deteriorated to the point where it adversely affected the country's financial sector or macroeconomic stability.

Further changes in the *Ley Nº 27,958* were: i) the cap to the increase in real nonfinancial expenditures of the general government was raised from 2% to 3%; ii) the budgeted fiscal deficit of the nonfinancial public sector in the first semester of an election year cannot exceed 40 percent of the budgeted annual deficit instead of 50 percent as in the 1999 law; and, iii) some modifications in the escape clause (extension up to three years and a new numerical ceiling of 2.5 per cent of GDP for the deficit).

More procedural (fiscal transparency provisions) and numerical changes were introduced in 2007 (*Ley Nº 29,035*) and 2008 (*Ley Nº 29,144*). In 2007 the coverage of expenditure under the rule was narrowed from nonfinancial expenditure to consumption expenditure of the central government (wages and salaries, goods and services, and pensions)⁵⁵ and this expenditure was deflated by the inflation target of the central bank to calculate its real change.

Regarding the assessment of the fiscal rule, as seen in Table 7, compliance with the deficit limits in 2000-02 proved problematic and following repeated breaches, the target was loosened in 2003, when a new sliding scale for the deficit was put in place, from 2% of GDP in 2003 to 1% of GDP in 2005 and thereafter. The compliance improved significantly since 2003 as mineral and other revenues boomed, and the limits were met with growing margins until 2008. On the contrary, the expenditure rule, in addition to undergoing several modifications⁵⁶, did not provide a binding

and to some extent allocated by SNGs, compared to the previous situation where SNGs managed less than 10 per cent of public spending.

⁵⁴ The National Decentralization Council can deny access for 90 days to conditional transfers to regions not complying with the fiscal rules during two consecutive years.

⁵⁵ Thus, investment spending and expenditure of the local and regional governments were excluded from the spending rule.

⁵⁶ Changes include not only the use of different deflators and targets for real growth rates, but also the transactional coverage to use the cap (from current spending to consumption expenditure).

constraint during the upswing as the fiscal rule and did not help anchor the fiscal policy formulation process and moderate procyclicality. In any case, due to the booming of revenues, the Peruvian government reduced its debt on the upside (the public sector gross debt was reduced from 44 percent of GDP in 2004 to 24 in 2010)⁵⁷.

The global financial crisis put pressure on the fiscal rules. In May 2009 Congress approved the waiver presented by the Executive soliciting the relaxation of the fiscal rule to allow for a deficit of 2% of GDP in 2009-10 (returning to the 1% limit in 2011) and the relaxation of the expenditure rule (to a yearly real change of 4%). In fact, the government passed a significant countercyclical fiscal stimulus (3.5% of GDP) as a policy response to the crisis: central government's consumption expenditure was allowed to grow 10% in 2009 and 8% in 2010, beyond the limits imposed by the fiscal rules, and capital expenditure increased by more than 35% in both years. In fact, the Peruvian fiscal rule that combines deficit and current expenditure ceilings seems to be well suited to favour public infrastructure investment, key to close the significant infrastructure gaps of the region (see Carranza *et al.*, 2011). There were, however, low execution rates of capital spending as they are mainly made at the subnational level.

The fiscal rule also created a fiscal stabilization fund to mitigate cyclical variations. The *Fondo de Estabilización Fiscal (FEF)* accumulates income from the fiscal surplus at the end of the year (if current income from ordinary resources exceeded its three previous year's average in 0.3% of GDP), 10% of net income from each sale of assets for privatization, 10% of down payments by state concessions and 30% of funds raised by new royalties for the exploitation of nonrenewable natural resources owned by the state, in addition to interest from deposits in the *FEF*. The stabilization fund may not exceed 4% of GDP. The resources exceeding this limit will be used for debt reduction or will go to the *Fondo Consolidado de Reservas Previsionales*. *FEF* resources may only be used when revenues are at least 0.3 percent of GDP lower than the average ratio of the last 3 years and GDP declines in two consecutive quarters. However, no more than 40 percent of total funds can be used in a given year, except when the escape clauses apply. At the end of 2009 it had accumulated 1.4% of GDP and it was not used during the financial crisis because discretion regarding the timing of inflows to the *FEF* allowed the government to apply the 2008 surplus to the stimulus. On 31 March *Emergency Decree Nº 012-2011* was passed to achieve the objective of increasing the *FEF*, which amounted to \$5.63 billion (3.2% of GDP) at the end of 2011.

The Venezuelan fiscal rules⁵⁸

Venezuela's history with oil funds goes back a long way. In the mid 1970s following the first oil price boom, the *Fondo de Inversión de Venezuela (FIV)* was created. The objective of the fund was to help save a significant share of the oil windfall. In the event, part of the fund's resources was soon diverted to financing domestic investments and taking equity in public enterprises that subsequently turned out to be loss makers. Thus, while Venezuela's oil exports surged from US\$3 billion in

⁵⁷ Similarly, a sound debt management strategy successfully reduced debt vulnerabilities in terms of currency and interest rate risks.

⁵⁸ The main source for this section is IMF (2010c).

1972 to US\$20 billion in 1981, during the period the *FIV* saved only US\$2.5 billion at the central bank. In the 1990s, some of the fund's remaining resources were used to support loss-making state companies in the electricity sector – in effect, energy subsidies were provided off budget through the use of the *FIV*'s resources.

Between 1998 and 2000 a new framework to help manage oil resources was put in place. First, an organic budget law was approved in 2000. The law was intended to strengthen fiscal policy and reduce public expenditure volatility – a chronic problem in Venezuela. It focused on improving the budget process, including the use of a multiyear framework, and introduced multiyear numerical fiscal rules for the current balance, expenditure growth, and the public debt. Implementation of the law, however, was postponed. In 1998, an oil stabilization fund, the *Fondo de Inversión para la Estabilización Macroeconómica (FIEM)* was created. The objectives of the fund were to help insulate the budget and the economy from fluctuations in oil prices. As initially designed in late 1998, contributions to the fund were specified as the oil revenues above a reference value corresponding to a five year moving average. Resources could only be drawn from the fund in a given year if oil revenues were below the reference value or resources in the fund exceeded 80 percent of the moving average of oil export revenues, in which case resources could be used to amortize public debt. The rules of the *FIEM* were substantially modified in 1999. The reference values triggering accumulation or withdrawal of resources were fixed at US\$9 a barrel. Fifty percent of any oil revenues that accrued at a price above this value were to be deposited by the central government, the regional governments and PDVSA (the state oil company) in the *FIEM*. Discretionary withdrawals from the fund with government authorization and legislative approval were allowed. In 2001 the *FIEM* was modified again, and the government and PDVSA were exempted from the requirement to make deposits for a while. Many further changes were introduced in subsequent years in the context of the annual budgets. In 2004 the *Fondo de Estabilización Macroeconómica (FEM)* was set up to replace the *FIEM* and it did not accumulate any significant resources during 2005-08 when oil prices surged. Therefore, rules about this fund were frequently changed, ignored, or the operation of the fund was temporarily suspended. In fact, the oil fund mostly integrated with overall fiscal policy. Even at times, the required deposits could only be made in the fund by taking on public debt. It is not strange that according to the *Sovereign Wealth Fund Institute* (2010), the Venezuelan *FEM* was given a very negative grade in terms of transparency (just 1 out of 10).

In summary, the organic budget law and the *FIEM/FEM* were put in place with the objective of improving fiscal performance and smoothing expenditure. Nonetheless, they did not achieve this purpose as they did not prevent the implementation of highly procyclical fiscal policies. During the boom and in a situation of abundant liquidity generated by resource revenues, a number of rules targeting the nonresource balance and the rate of growth of expenditure were tested by mounting expenditure pressures. These pressures may have been based in part on growing perceptions as time went by that the resource price increases were “permanent.” As a result, the rules were not implemented.

Assessment of fiscal rules in Latin America

The role of numerical fiscal rules and stabilization funds in both short run stabilization and the promotion of longer term sustainability have gained increased emphasis in policy and academic debates. In theory, well designed and effectively implemented fiscal rules, although second best policies, can help reduce time inconsistency in budgetary policies, strengthen the credibility of a government's commitment to fiscal sustainability, and facilitate countercyclical fiscal management. However, these effects are difficult to test empirically. The rules and funds have been in place for just a few years and there are sample selection and identification problems as fiscal rules in some countries are part of a broader rules-based macroeconomic policy framework. Additionally, many governments have violated their fiscal rules. Hence, it would be very useful to have data on the *facto* rules (an index of enforcement of the *jure* rules) to improve the model's explanatory power. Lastly, in addition to fiscal rules, two other important factors that can explain the improvement of the fiscal policy behaviour are the learning-by-doing effect from the previous boom and the quality of policymakers. But they are very difficult to measure.

Several studies have found correlation between the existence of fiscal rules and the fiscal performance. Manasse (2006), in a sample of 49 countries, modelled fiscal rule as a dummy variable to explain the primary deficit and found that fiscal policy is weakly procyclical and that the presence of a fiscal rule makes it more countercyclical. But it is difficult to establish causality due to an endogeneity bias (once the quality of institutions is accounted for it could be the case that fiscal rules do not significantly affect policy)⁵⁹: it is more likely that virtuous countries/governments put in place fiscal frameworks that are conducive to fiscal sustainability and to a correct policy response to the cycle, rather than being such frameworks that make countries/governments more virtuous. Dos Reis and Guerson (2006) tried to shed some light on this by simulating a structural balance expenditure rule for five Latin American countries using a vector autoregression (VAR) framework. They found that if expenditure were set at a fixed percentage of long run (structural) government revenue, the volatility of output would always be lower. Caceres *et al.* (2010), using structural breaks in the level or variance of the primary fiscal balance, find limited empirical evidence in support of the view that fiscal rules have had a distinguishable effect on fiscal performance⁶⁰. And Thornton (2009) concludes that fiscal rules have not contributed to improvements in fiscal outcomes in emerging markets⁶¹.

With respect to the aim of strengthening the long term sustainability (reducing the deficit bias and controlling the growth in public debt) in Latin America, Daude *et al.*

⁵⁹ See Frankel *et al.* (2011).

⁶⁰ They find that fiscal rules may have helped anchor efforts to strengthen fiscal policy, but do not seem to have been the driver of such efforts. There are nine countries in their sample. Five of them (Argentina, Brazil, Colombia, Ecuador and Peru) are from Latin America.

⁶¹ The empirical approach relies on "differences-in-differences" estimation and assumes an arbitrary "treatment date" for the control group in the sample. As discussed in this paper, the correct selection of break dates is critical to avoid estimation bias. Emerging market economies that did not adopt fiscal rules also experienced improvements in their fiscal performance around the same time as the economies which adopted them.

(2011) found that sustainability had recently improved (all the countries except Argentina were able during the last decade to exhibit fiscal balances above those required to sustain their current debt levels).

Regarding the short term stabilization aim, IMF (2011a) points out that after adopting the rules, fiscal policy was broadly procyclical as real expenditures expanded well above the rate of potential economic growth. A different and more common way to measure the fiscal stance is through the fiscal impulse, defined as the change in the structural primary balance⁶². In figure 1, these fiscal impulses are compared with the cyclical position of the economy for six Latin American countries in the period 1992-2009⁶³. The chart can be read as follows: the upper right-hand quadrant (an increase in the structural balance - a positive fiscal impulse- at a time of economic upturn) and the lower left-hand quadrant (decrease in the structural balance - a negative fiscal impulse - at a time of economic downturn) signal a countercyclical –and thus stabilizing- role for fiscal policy. The other two quadrants indicate procyclical fiscal positions. And points close to the horizontal axis indicate fiscal episodes that are neutral in relation to the economic cycle. The great majority of cycles and fiscal episodes are in the two quadrants corresponding to procyclical positions. According to different authors⁶⁴, the procyclicality derives from frequent revisions to the numerical targets but also from the rules' emphasis on balanced budgets or deficit ceilings. In this sense, a way to avoid procyclical behaviour in public spending in fiscal rules is to replace annual GDP growth as a reference with a measure of the economy's potential growth (defined *ex ante*).

The relationship between fiscal policy and the economic cycle can also be evaluated through the estimation of a simple linear regression of the variation of the adjusted budget balance on the output gap level. A negative coefficient regression β , indicates that a positive shock in the economy (that is, a positive GDP gap) is associated with deterioration in the fiscal balance, so that fiscal policy is procyclical, whereas a positive coefficient means that fiscal policy is countercyclical (and a zero coefficient means that fiscal policy is acyclical). The results of the estimates are shown in figure 1, where negative signs are found for either the 1992-2000 ($\beta = -0.102$) and the 2001-2009 ($\beta = -0.114$) periods (*pre* and *post* fiscal rules periods, approximately). From a national perspective, Chile, as expected given the nature of its fiscal rule, shows a countercyclical pattern, especially in the second period ($\beta = 0.47$), while in Colombia and Peru fiscal policy has been fairly acyclical (β around zero in both periods). Argentina, Brazil and Mexico show the highest procyclicality with some progress in this field in the second period (lower β in absolute terms). Other studies (Vladkova-Hollar and Zettelmeyer, 2008; and Jimenez and Kacef, 2009) also show that

⁶² The fiscal impulse is a measure of whether changes in fiscal policy are adding, or subtracting from, aggregate demand pressures in the economy. Therefore, automatic fiscal stabilizers are excluded from this measure.

⁶³ Our thanks go to Ángel Melguizo of the OECD Development Centre for providing us with estimates of cyclically adjusted public revenues for Argentina, Brazil, Chile, Colombia, Mexico and Peru implementing the standardised OECD methodology and extending it to include commodity cycles (following basically the IMF approach in Vladkova and Zettelmeyer, 2008).

⁶⁴ See, for example, Izquierdo and Talvi (2008).

most countries of the region conducted a less procyclical (in some cases, a broadly cyclically neutral) fiscal policy during the years preceding the recent global financial crisis, utilizing part of the revenue boom to reduce their public debt (improving also its structure and composition) and, in some cases, to build stabilization funds. Céspedes and Velasco (2011) focus on the behaviour of fiscal variable across the commodity cycle, in contrast to behaviour across the output cycle⁶⁵, which has been the focus of the earlier research of fiscal procyclicality. They find evidence that, contrary to previous commodity boom episodes, in the recent episode of increases in commodity prices (2003-08) procyclicality had reduced in most of Latin America (with the exception of Venezuela). One of the significant determinants of the cyclicity of government expenditures is the existence of a fiscal rule with the expected sign.

Resisting strong political pressures in those boom years was not easy as shown by the Chilean example. In 2007 and 2008, the President of Chile, Michele Bachelet, had a low approval rating (see figure 2), especially for the management of the economy. One of the reasons for this was the popular resentment that the government had resisted intense pressure to spend the soaring receipts from copper exports which had been mostly saved. However, since mid-2009, Bachelet attained a very high approval rating which kept through the remainder of the term⁶⁶. The change took place in a period when the global recession hit the Chilean economy (the economy contracted 1.5% in 2009 and unemployment increased to its highest level in 5 years, 10%). But the government increased spending sharply, using the assets that it had acquired during the copper boom, and thereby moderated the downturn. As stated by Frankel (2011): *“...saving for a rainy day made the officials heroes when that rainy day comes, but it is very difficult to be a hero in sunny days...”*.

Additionally, calculating the business cycle and the commodity cycle is not straightforward. And it is very relevant for the application of rules based on structural balances. There is a great degree of uncertainty concerning output gap estimates in Latin America as the trends for potential output are compounded with highly volatile cyclical shocks. The volatile, uncertain, and exhaustible resource revenues also pose significant challenges to fiscal management as it is not easy to distinguish their transitory and permanent components. It is a well-known fact that commodity prices are highly persistent and it is hard to reject the hypothesis that they follow a “random walk”, i.e., that expected tomorrow’s price is equal to today’s price. Moreover, high commodity prices tend to coincide with low interest rates, which makes borrowing more attractive, especially for economies that are net debtors, as most Latin American countries are. Thus, this has led in the past to spending in excess due to the price-rise.

In any case, for the first time in recent decades most countries in the region were able to avoid a procyclical fiscal response to a negative shock (the 2008-09 global

⁶⁵ Commodity prices can be claimed to be invariant with respect to policy response in individual commodity-producers in the sample, which ensures that the empirical analysis is free from double-causality problems. This is a great advantage over much of the previous literature that examines procyclicality with respect to the GDP, which are unquestionably not invariant with respect to domestic policy.

⁶⁶ The same can be said about the evolution of the approval rating of her Finance Minister, Andrés Velasco.

financial crisis)⁶⁷. But another shortcoming of the fiscal rules in Latin America is related to its behaviour during the recent global crisis (in the presence of low growth or of external shocks affecting commodity prices), as most rules were modified, incorporating escape clauses to limit the application of numerical rules or to suspend them following *ad hoc* procedures. This should only apply in *ex ante* predefined circumstances, be well designed from the start, and require objective analysis and scrutiny to invoke their application to ensure that credibility in the fiscal rule is not undermined as shown by the negative experience in Peru's earlier versions of the fiscal rule.

In most countries fiscal councils do not exist or are institutionally weak. Their advice is not binding, critical fiscal policy analysis is almost inexistent⁶⁸, and budgetary accountability and ex-post evaluation is not substantive. Therefore, a second generation of fiscal rules in Latin America should also give a more prominent role to independent fiscal agencies in their part as complement to fiscal rules.

Concluding remarks

A sound design of fiscal rules and their effective implementation and enforcement are far from easy, since they: i) limit the flexibility of policymakers to respond to different economic and political challenges, especially in countries with small automatic stabilizers; ii) change the balance of power between political actors; iii) involve significant trade-offs among different policy objectives; and, iv) have to be tailored to specific economic and institutional characteristics of each country. Additionally, the design of fiscal rules needs to be carefully coordinated with the monetary stance, to avoid volatility or undesirable sustained pressures on interest rates or exchange rates⁶⁹. The state of a country's financial system also matters for the decision to adopt a fiscal rule, and for its design: if the financial system is in a precarious state, likely requiring significant government bailouts, a debt rule may become quickly untenable.

There is no dominance of one rule to the others but rather each involves trade-offs in terms of sustainability, cyclicity, volatility of main fiscal variables, and different degrees of implementation challenges. Fiscal rules can serve different objectives, such as: promote fiscal sustainability, provide fiscal flexibility (ability to respond to shocks) in order to promote economic stabilization, contain the size of government, support intergenerational equity, increase public infrastructure investment, etc. Each type of fiscal rule has different properties relative to key policy objectives. Furthermore, priorities may change over time once gains from past policies are achieved, which may justify a change of the fiscal rule in place.

⁶⁷ Headline fiscal balances fell abruptly, whereas structural fiscal balances fell moderately.

⁶⁸ Multi-year macroeconomic projections of revenue, expenditure, public investment, and public debt are undertaken within the Ministries of Economy and Finance, which are also the actors charged with designing and implementing the fiscal policies. Thus, there is room for further strengthening of external formal checks-and-balances.

⁶⁹ During a commodity boom, increased capital inflows lead to real exchange rate appreciations, intensifying the imbalances between commodity-related industries and other exporting industries like manufacturing.

As seen in the previous sections, there is a wide variety of fiscal rules in Latin America and their targets differ across countries. For example, rules on budget balance are subject to some variations: overall balance, current balance (or golden rule so that to avoid the crowding-out of much needed public investment). In some countries, the budget balance rule is accompanied by additional limits on total government expenditures, primary (noninterest) outlays, interest payments, and/or the wage bill, in order to contain the fastest growing components of fiscal imbalance. In other countries less procyclical but more information and institutional design demanding rules have been adopted.

At the same time, the institutional coverage of rules depends on the degree of fiscal decentralization and autonomy of various levels of government (Chile is a relatively centralized fiscal system, in Mexico and Peru decentralization is growing and Argentina, Brazil and Colombia have more autonomy). Even in the case of decentralized systems there are top-down systems (Brazil, Colombia, Peru) or cases like Argentina, in which, the federal government passed the law only for itself, and this set the framework, incentive, or example for the SNGs to have their own fiscal rules voluntarily. Therefore, SNGs are starting off from different levels of development and of mandates of expenditures. And fiscal rules cannot substitute for well-designed systems of intergovernmental fiscal relations because introducing hard constraints at SNGs can adversely affect the quality of public services. Unfortunately, most countries in the region lack formal forums for policy dialogue across government levels, the formulation of subnational budgets is often carried out without timely inputs by the central government, and reporting by the SNGs on their budget execution is subject to long delays and based on different accounting rules. Additionally, in cases where SNGs have accumulated a large stock of debt, the success of a fiscal rule may require a debt rescheduling program with the national government, as suggested by the Argentinean and Brazilian experiences. In any case, this is not an easy issue as shown by the recent European fiscal crisis. The international experience has been towards not trusting in market-based approaches solely to control subnational borrowing but subnational fiscal rules should be enforceable.

Fiscal rules in Latin America (perhaps with the exceptions of Brazil and Chile) had a generally poor start as they were modified repeatedly since first adopted, with fiscal performance continuing to deteriorate up until the revisions. This survey has studied whether they have served two main objectives: fiscal sustainability and the capacity to respond to shocks with better grades on the former. It has also offered some suggestions to improve the fiscal rule frameworks. In any case, although they can help, fiscal rules are neither necessary nor sufficient to achieve fiscal discipline.

One last aspect that should never be forgotten is that the fiscal rules can be regarded as a formal expression of the political will to maintain fiscal discipline. So when the framework is substantially diluted or abandoned after introduction means nothing: a rules-based fiscal policy alone, without the political will to enforce it, is doomed to failure.

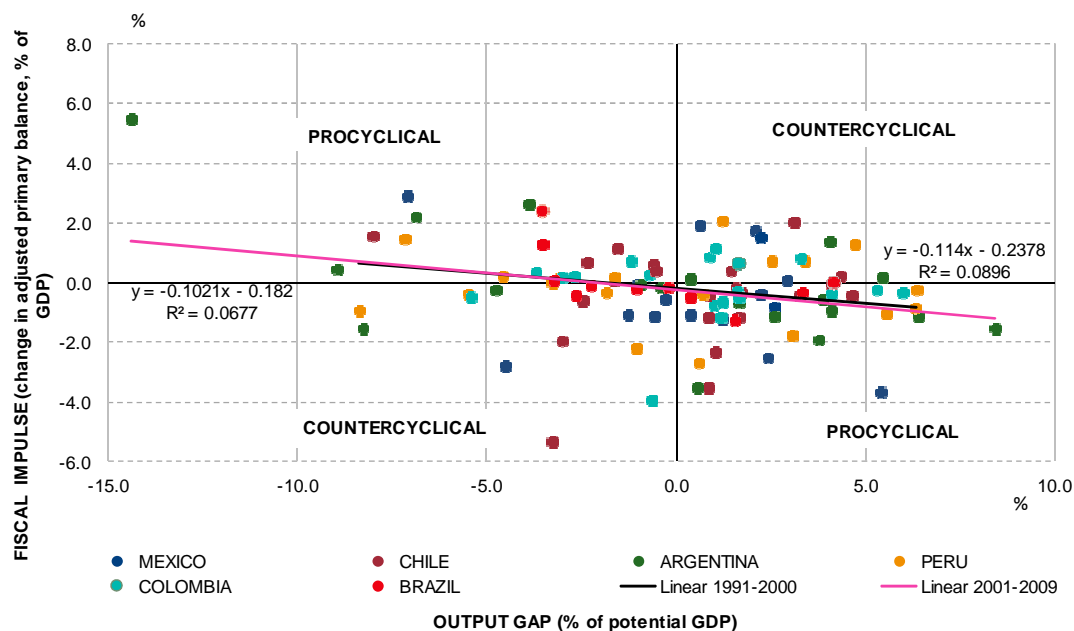
References

- Aguiar, M. and G. Gopinath, "Emerging market business cycles: the cycle is the trend", *Journal of Political Economy*, 115, 2007, pp. 69-102.
- Alberola, E. and J. Montero, "Debt sustainability and procyclical fiscal policies in Latin America", *Economía*, 7, 2006, pp. 157-193.
- Barro, R.J., "On the determination of the public debt", *Journal of Political Economy*, 87, 1979, pp. 940-971.
- Barro, R. J. and D. Gordon, "Rules, discretion, and reputation in a positive model of monetary policy", *Journal of Monetary Economics*, 12, 1983, pp. 101-121.
- Bevilaqua, A., "State government bailouts in Brazil", Department of Economics Working Paper No. 421, Pontifica Universidade Catolica, Rio de Janeiro, 2000.
- Braun, M. and N. Gadano, "¿Para qué sirven las reglas fiscales? Un análisis crítico de la experiencia argentina", *Revista de la CEPAL*, 91, 2007, pp. 53-65.
- Caballero, R., Corbo, V., Marcel, M. Rosende, F. Schmidt-Hebbel, K., Vergara, R. and J. Vial, "Informe del comité asesor para el diseño de una política fiscal de balance estructural de segunda generación para Chile", 2011.
- Caceres, C., A. Corbacho and L. Medina, "Structural breaks in fiscal performance: do fiscal responsibility laws have anything to do with them?", IMF Working Paper 10/248, 2010.
- Carranza, L., Daude, C. and A. Melguizo, "Public infrastructure investment and fiscal sustainability in Latin America: incompatible goals?", OECD Development Centre Working Paper No. 301, 2011.
- Céspedes, L. and A. Velasco, "Was this time different? Fiscal policy in commodity republics", BIS Working Paper No. 365, 2011.
- Comité Técnico Interinstitucional, "Regla fiscal para Colombia", 2010.
- Dabán, T., "Strengthening Chile's rule-based fiscal framework", IMF Working Paper 11/17, 2011.
- Daude, C., Melguizo, A. and Neut, A., "Fiscal policy in Latin America: counter-cyclical and sustainable?", *Economics: The Open-Access, Open Assessment e-Journal*, 5, 2011.
- Dos Reis, L. and A. Guerson, "Counter-cyclical fiscal policy and international financial shocks: an empirical evaluation of structural balance rules in LAC", *mimeo*, 2006.
- Ffrench-Davis, R., "Latin America: the structural fiscal balance policy in Chile: a move toward counter-cyclical macroeconomics", *Journal of Globalization and Development*, 1(1), 2010, article 14.
- Frankel, J., "A solution to fiscal procyclicality: the structural budget institutions pioneered by Chile", NBER Working Paper No. 16945, 2011.

- Frankel, J., C. Végh and G. Vuletin, "On graduation from fiscal procyclicality", NBER Working Paper No. 17619, 2011.
- Gavin, M. and R. Perotti, "Fiscal policy in Latin America", in *NBER Macroeconomic Annual 1997*, 1997.
- Giambiagi, F. and M. Ronci, "Fiscal policy and debt sustainability: Cardoso's Brazil, 1995-2002", IMF Working Paper 04/156, 2004.
- IMF, "Intergovernmental fiscal relations in Argentina – History and analysis", *Selected Issues in Article IV Argentina*, 2005, pp. 25-48.
- IMF, "Brazil fiscal framework: successes and challenges", *Selected Issues in Article IV Brazil*, 2009a, pp. 65-77.
- IMF, "Fiscal Rules Anchoring Expectations for Sustainable Public Finances", Fiscal Affairs Department, 2009b.
- IMF, "Performance of alternative fiscal rules: an application to Peru", *Selected Issues in Article IV Peru*, 2010a, pp. 2-21.
- IMF, "Reforming the fiscal framework: budget rules and fiscal risks", *Selected Issues in Article IV Mexico*, 2010b, pp. 21-39.
- IMF, "Riding the roller coaster: fiscal policies of nonrenewable resource exporters in Latin America and the Caribbean", IMF Working Paper 10/251, 2010c.
- IMF, "Rule-based fiscal frameworks for Latin America", *Regional Economic Outlook, Western Hemisphere*, 2011a, pp. 41-42 (Box 2.3).
- IMF, "When and how to adjust beyond the business cycle? A guide to structural fiscal balances", *Technical Notes and Manuals*, Fiscal Affairs Department, 2011b.
- IMF, "Towards a structural fiscal framework", *Selected Issues in Article IV Peru*, 2012, pp. 3-17.
- Izquierdo, A. and E. Talvi, *All that glitters may not be gold: assessing Latin America's recent macroeconomic performance*, Inter-American Development Bank, 2008.
- Jiménez, J.P. and O. Kacef, "Macroeconomic policies in times of crisis: options and prospects", Project Document LC/W275, Santiago de Chile, CEPAL, 2009.
- Kaminsky, G., Reinhart, C. and C. Végh, "When it rains, it pours: procyclical capital flows and macroeconomic policies", *NBER Macroeconomics Annual 2004*, vol. 19, 2005, pp. 11-82.
- Kopits, G., "Fiscal rules: useful policy framework or unnecessary ornament?", IMF Working Paper 01/145, 2001.
- Kydland, F. W. and E. C. Prescott, "Rules rather than discretion: the inconsistency of the optimal plans", *Journal of Political Economy*, 85, 1977, pp. 473-491.
- Lozano, I., Ramos, J., Hernán, R. and M. Sarmiento, "Regla fiscal cuantitativa para consolidar y blindar las finanzas públicas en Colombia", *Borradores de Economía*, no. 505, 2008.

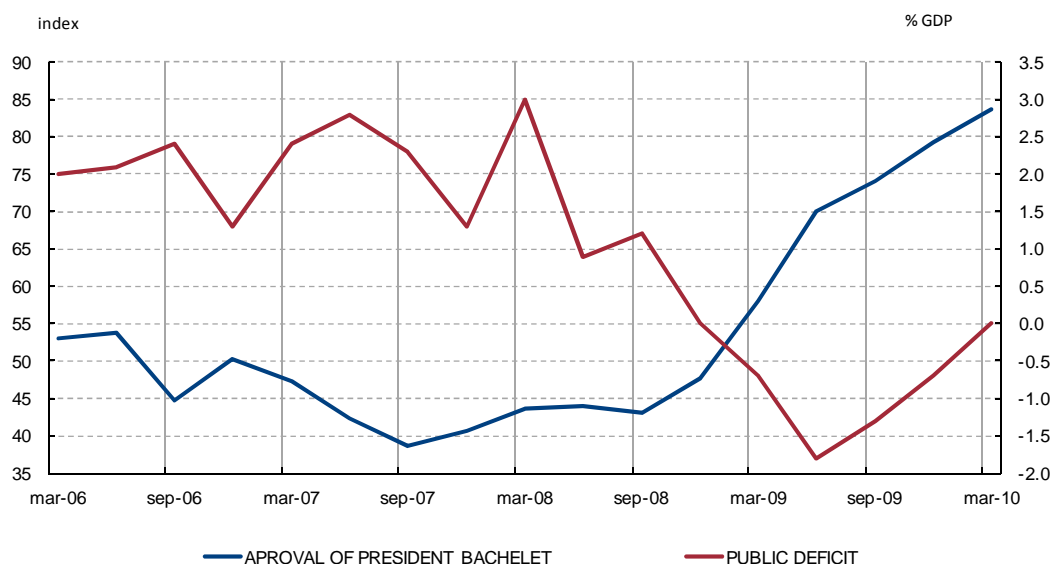
- Manasse, P., "Procyclical fiscal policy: shocks, rules and institutions – a view from MARS", IMF Working Paper 06/27, 2006.
- Marcel, M., *La regla de balance estructural en Chile: diez años, diez lecciones*, Banco Interamericano de Desarrollo, 2010.
- Melamud, A., "Reglas fiscales en Argentina: el caso de la ley de responsabilidad fiscal y los programas de asistencia financiera", Serie gestión pública de la CEPAL, 71, 2010.
- Milesi-Ferretti, G., "Good, bad or ugly? On the effects of fiscal rules with creative accounting", *Journal of Public Economics*, 88, 2004, pp. 377-394.
- Nieto-Parra, S. and J. Santiso, "Revisiting political budget cycles in Latin America", *SUERF Studies 2010/50*, 2010, pp. 47-87.
- Orphanides, A. and S. Van Norden, "The unreliability of output gap estimates in real-time", *Review of Economics and Statistics*, 84, 2002, pp. 569-83.
- Rogoff, K., "The optimal degree of commitment to an intermediate monetary target", *Quarterly Journal of Economics*, 100, 1985, pp. 1169-84.
- Schmidt-Hebbel, K., "Fiscal rules and institutions in the World and in Chile", prepared for the *Conference on Independent Fiscal Institutions*, held by the Fiscal Council of the Republic of Hungary, March 18-19, 2010.
- "Sovereign Wealth Fund Institute", 2010, en <http://www.swfinstitute.org/statistics-research/linaburg-maduell-transparency-index/>.
- Ter-Minassian, T. and J.P. Jiménez, "Macroeconomic challenges of fiscal decentralization in Latin America in the aftermath of the global financial crisis", Serie Macroeconomía del Desarrollo No. 112, 2011.
- Thornton, J., "Do fiscal responsibility laws matter? Evidence from emerging market economies suggest not", *Journal of Economic Policy Reform*, 12, 2009, pp. 127-132.
- Vladkova-Hollar, I. and J. Zettelmeyer, "Fiscal positions in Latin America: Have they really improved?", IMF Working Paper 08/137, 2008.
- Walsh, C., "Optimal contracts for central bankers", *American Economic Review*, 85, 1995, pp. 150-67.

FIGURE 1: PROCYCLICAL FISCAL POLICY IN LATIN AMERICA



Source: Data from Daude *et al.* (2011)

FIGURE 2: APPROVAL OF PRESIDENT AND MANAGEMENT OF PUBLIC FINANCES IN CHILE



Source: Adimark GfK, public opinion survey and Ministry of Finance of Chile

TABLE 1. Key characteristics of fiscal rules in Latin America.

COUNTRY	ORIGINAL LAW	LAST MODIFICATION	CYCLICAL STABILIZATION	LEVEL OF GOVT. ¹	NUMERICAL TARGET FOR BALANCE/EXPENDITURE	NUMERICAL TARGET FOR DEBT (SNGs)	RELATED INSTITUTION	STATUTORY BASE	GOLDEN RULE	ESCAPE CLAUSE
Argentina	<i>Ley 25.152 de Solvencia Fiscal</i> (1999)	<i>Ley 25.917, Régimen General de Responsabilidad Fiscal</i> (2004)	NO	CG, SNG (agreement with CG)	Nominal growth of primary expenditure must not exceed nominal GDP growth	Debt servicing does not exceed 15% of current resources	<i>Consejo Federal de Responsabilidad Fiscal</i>	High level legislation	YES	NO
Brazil	<i>Lei de Responsabilidade Fiscal e Finanças Publicas Municipais</i> (2000)	2009	NO	NFPS (without Petrobras)	Current equilibrium (SNG); primary surplus (CG)	Annual borrowing limits	<i>Fundo Soberano do Brasil</i>	High level legislation	YES	YES
Chile	<i>Ley 20.128 sobre Responsabilidad Fiscal</i> (2006)	2011	YES	CG	Overall structural balance		<i>Fondo de Estabilización Económica y Social/ Fondo de Reserva de Pensiones</i>	High level legislation	NO	NO
Colombia ²	<i>Ley 358 de Semáforos</i> (1997)	<i>Ley 819 de Responsabilidad Fiscal</i> (2003)	NO	NFPS	Primary surplus	Borrowing limits determined by solvency and liquidity indicators		High level legislation	NO	NO
Mexico	<i>Ley Federal de Presupuesto y Responsabilidad Hacendaria</i> (2006)	2010	SOME	CG	Current equilibrium		1 st tier and 2 nd tier <i>Fondos de Estabilización</i>	High level legislation	NO	YES
Peru	<i>Ley 27.245 de Prudencia y Transparencia Fiscal</i> (1999)	2007	NO	NFPS	Deficit below 1% of GDP for NFPS; real growth of consumption expenditure below		<i>Fondo de Estabilización Fiscal</i>	High level legislation	YES	YES



					4% per year for CG					
Venezuela (Bolivarian Republic of)	2000		NO	CG	Current equilibrium		<i>Fondo de Estabilización Macroeconómica</i>			

Source: National laws and references cited in the text. ¹ CG= Central Government; NFPS = Nonfinancial public sector; SNG = Subnational governments. ² As explained in Section 5, Specific regulations are being developed for the implementation of a cyclically adjusted fiscal rule.

Table 2. Numerical targets of the fiscal rules for Argentina (1)

	2006	2007	2008	2009	2010
Current central government spending (% nominal change)					
Target	23.0	24.1	25.2	10.9	25.9
Execution	18.6	20.1	27.1	9.1	21.0
Fulfillment?	√	¿?(2)	¿?(2)	¿?(3)	¿?(3)

Source: Compliance assessment reports prepared by the Federal Council of Fiscal Responsibility.

(1) Numerical (spending and debt) rules for subnational governments are not included in this table. In the same way, debt and public balance rules for the central government are not considered.

(2) Expenditure on education to satisfy the Law no. 26,075 and payments due to judicial sentences are subtracted from the current expenditure. Without this deduction the nominal current public spending was many points above the ceiling.

(3) During 2009 and 2010, according to law number 26,530, public expenditures related to promoting economic activity, sustaining the level of employment, health insurance and social assistance were excluded from the current government spending.



Table 3. Numerical targets of the fiscal rule for Brazil.

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Consolidated primary budget surplus (% GDP)(1)											
Indicative target	3.35	3.5	4.25	4.25	4.25	4.25	3.8(2)	3.8	2.5(4)	3.3	3.3
Execution	3.6	3.9	4.3	4.6	4.8	4.3	3.9	4.1(3)	2.0(5)	2.8(5)	3.1
Fulfillment?	√	√	√	√	√	√	√	√	¿?(6)	x	¿?(7)

Sources: Ministério do Planejamento and yearly *Lei de Diretrizes Orçamentarias*.

(1) The targets refer to those set for the central government and its public enterprises in the Budget Guidelines Laws (LDO in Portuguese), together with the expected outturn for the regional governments (states and municipalities) and their public enterprises.

(2) The target was set at 4.25% of GDP and then re-set at 3.8% following a revision of the national accounts, which increased nominal GDP by about 11%.

(3) Net of a capital injection of 0.5% of GDP into the Sovereign Wealth Fund.

(4) The target was partly reduced due to the exclusion of Petrobras from the public-sector aggregate (Petrobras registered a 0.5% of GDP primary surplus in 2008).

(5) Substantial quasi-fiscal stimulus through net transfers from the Treasury to BNDES is not recorded.

(6) The government can exclude investment spending when calculating the primary budget surplus (public investment adjustor). To reach the target, the adjustor was used to a value of 0.5 percent of GDP.

(7) Parliament changed the target during the year as allow by the fiscal rule and the new one was satisfied.

Table 4. Numerical targets of the fiscal rule for Chile.

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Structural surplus (% GDP)											
Target	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	0.0	0.0	-1.8
Execution(1)	1.1	0.8	0.8	1.0	1.1	1.4	1.1	-0.8	-3.0	-2.0	-1.5
Fulfillment?	√	√	√	√	√	√	√	x	x	x	√

Sources: Dirección de Presupuestos.

(1) Structural balance according to simulations taking into account the recommendations of the *Corbo Commission* as found in the "Informe de Finanzas Públicas para el Presupuesto 2012".

Table 5. Numerical targets of the fiscal rule for Colombia(1)

	2005	2006	2007	2008	2009	2010	2011
NFPS primary surplus (% GDP)							
Indicative target	2.5	2.6	2.6	2.6	1.9	0.1	0.0
Execution	3.3	3.2	3.0	3.5	0.9	-0.1	
Fulfillment?	√	√	√	√	x	x	

Sources: Ministerio de Hacienda y Crédito Público of Colombia and yearly Medium Term Fiscal Framework reports.

(1) Numerical rules for subnational governments are not included in this table



Table 6. Numerical targets of the fiscal rule for Mexico.

	2007	2008	2009	2010	2011
Traditional balance (% GDP)(1)					
Target	0.0	0.0	-0.6	-0.7	-0.5
Execution	0.0	-0.1	-0.2	-0.8	-0.6
Fulfillment?	√	√	√	√	√

Source: Secretaría de Hacienda y de Crédito Público de México.

(1) The traditional balance excludes investment by PEMEX. There was a break in the series in 2009.

Table 7. Numerical targets of the fiscal rules for Peru(1)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009(5)	2010(5)	2011
NFPS overall deficit (% GDP)												
Target	2.0	1.5	1.0	2.0	1.5	1.0	1.0	1.0	1.0	2.0	2.0	1.0
Execution	3.3	2.7	2.2	1.7	1.1	0.3	-2.3	-2.9	-2.3	1.3	0.3	-1.8
Fulfillment?	x	x	x	√	√	√	√	√	√	√	√	√
General government expenditure (% real change) (2)												
Target	2.0	1.5	1.0	2.0	1.5	1.0	1.0					
Execution	4.7	-0.7	4.2	3.8	4.2	9.8	3.7					
Fulfillment?	x	√	x	x	x	x	x					
Central government consumption (% real change) (3), (4)												
Target								3.0	3.0	4.0	4.0	4.0
Execution								0.4	4.9	13.3	8.0	10.9
Fulfillment?								√	x	x	x	x

Sources: IMF estimates and Central Bank of Peru (BCRP).

(1) Numerical rules for subnational governments are not included in this table.

(2) Deflated by GDP deflator.

(3) Consumption comprises spending on wages and salaries, goods and services, and pensions.

(4) Deflated by inflation target of BCRP (2%).

(5) Exceptional clauses in application.

